

DATA ANALYST PORTFOLIO PROJECT



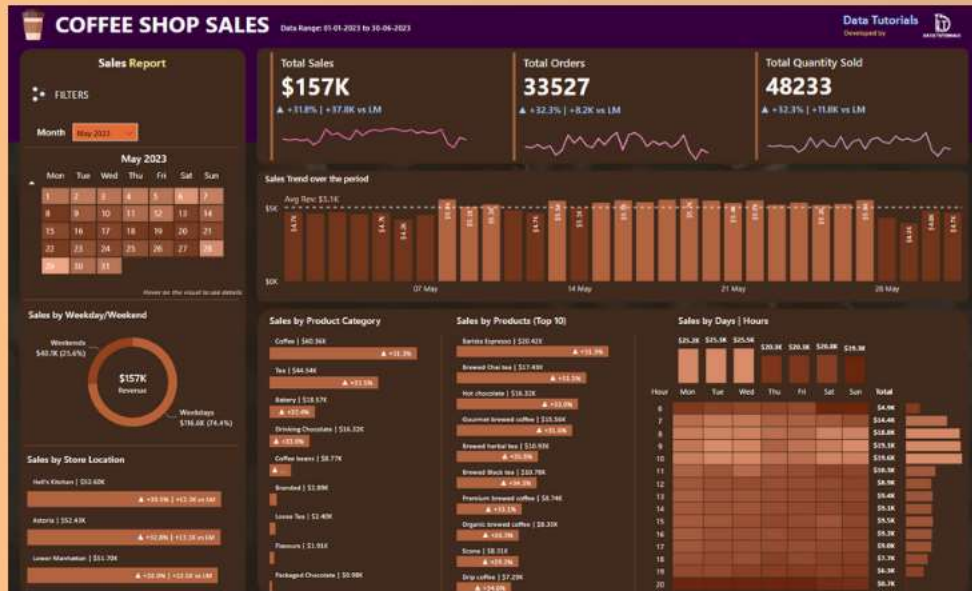
POWER BI + MYSQL



BY - DATA TUTORIALS



START TO END



```
Query 1
1 • SELECT
2     MONTH(transaction_date) AS month,
3     ROUND(SUM(unit_price * transaction_qty)) AS total_sales,
4     (SUM(unit_price * transaction_qty) - LAG(SUM(unit_price * transaction_qty), 1)
5     OVER (ORDER BY MONTH(transaction_date))) / LAG(SUM(unit_price * transaction_qty), 1)
6     OVER (ORDER BY MONTH(transaction_date)) * 100 AS mom_increase_percentage
7 FROM
8     coffee_shop_sales
9 WHERE
10    MONTH(transaction_date) IN (4, 5) -- for months of April and May
11 GROUP BY
12    MONTH(transaction_date)
13 ORDER BY
14    MONTH(transaction_date);
```

Result Grid

month	total_sales	mom_increase_percentage
4	118941	31.769242384551315
5	156728	

PART 1

MY SQL



FIRING SQL QUERIES TO SOLVE THE BUSINESS PROBLEMS

```
1 • SELECT
2     MONTH(transaction_date) AS month,
3     ROUND(SUM(unit_price * transaction_qty)) AS total_sales,
4     (SUM(unit_price * transaction_qty) - LAG(SUM(unit_price * transaction_qty), 1)
5     OVER (ORDER BY MONTH(transaction_date))) / LAG(SUM(unit_price * transaction_qty), 1)
6     OVER (ORDER BY MONTH(transaction_date)) * 100 AS mom_increase_percentage
7 FROM
8     coffee_shop_sales
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10    MONTH(transaction_date) IN (4, 5) -- for months of April and May
11 GROUP BY
12    MONTH(transaction_date)
13 ORDER BY
14    MONTH(transaction_date);
```

Result Grid

	month	total_sales	mom_increase_percentage
▶	4	118941	NULL
	5	156728	31.769242384551315



You can use the data in any DB to fire queries. Just Minor Changes Needed

PROBLEM STATEMENT



KPI'S REQUIREMENTS

1. Total Sales Analysis:

- Calculate the total sales for each respective month.
- Determine the month-on-month increase or decrease in sales.
- Calculate the difference in sales between the selected month and the previous month.

2. Total Orders Analysis:

- Calculate the total number of orders for each respective month.
- Determine the month-on-month increase or decrease in the number of orders.
- Calculate the difference in the number of orders between the selected month and the previous month.

3. Total Quantity Sold Analysis:

- Calculate the total quantity sold for each respective month.
- Determine the month-on-month increase or decrease in the total quantity sold.
- Calculate the difference in the total quantity sold between the selected month and the previous month.

PROBLEM STATEMENT



CHARTS REQUIREMENTS

1. Calendar Heat Map:

- Implement a calendar heat map that dynamically adjusts based on the selected month from a slicer.
- Each day on the calendar will be color-coded to represent sales volume, with darker shades indicating higher sales.
- Implement tooltips to display detailed metrics (Sales, Orders, Quantity) when hovering over a specific day.

2. Sales Analysis by Weekdays and Weekends:

- Segment sales data into weekdays and weekends to analyze performance variations.
- Provide insights into whether sales patterns differ significantly between weekdays and weekends.

3. Sales Analysis by Store Location:

- Visualize sales data by different store locations.
- Include month-over-month (MoM) difference metrics based on the selected month in the slicer.
- Highlight MoM sales increase or decrease for each store location to identify trends.

PROBLEM STATEMENT



CHARTS REQUIREMENTS

4. Daily Sales Analysis with Average Line:

- Display daily sales for the selected month with a line chart.
- Incorporate an average line on the chart to represent the average daily sales.
- Highlight bars exceeding or falling below the average sales to identify exceptional sales days.

5. Sales Analysis by Product Category:

- Analyze sales performance across different product categories.
- Provide insights into which product categories contribute the most to overall sales.

6. Top 10 Products by Sales:

- Identify and display the top 10 products based on sales volume.
- Allow users to quickly visualize the best-performing products in terms of sales.

7. Sales Analysis by Days and Hours:

- Utilize a heat map to visualize sales patterns by days and hours.
- Implement tooltips to display detailed metrics (Sales, Orders, Quantity) when hovering over a specific day-hour.